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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/808,084	03/24/2004	Michael J. Porsch	COC-0536	5367

23575 7590 01/23/2007  
CURATOLO SIDOTI CO., LPA  
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CLEVELAND, OH 44145

EXAMINER
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SERGEANT, RABON A

ART UNIT	PAPER NUMBER
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1711

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/23/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

<b>Office Action Summary</b>	Application No. 10/808,084	Applicant(s) PORSCH ET AL.	
	Examiner Rabon Sergeant	Art Unit 1711	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 30 October 2006.  
 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.  
 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-82 is/are pending in the application.  
 4a) Of the above claim(s) 3-5, 14, 15, 32-34, 43, 44, 69, 77 and 78 is/are withdrawn from consideration.  
 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
 6) ☒ Claim(s) 1, 2, 6-13, 16-31, 35-42, 45-68, 70-76 and 79-82 is/are rejected.  
 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.  
 10) ☒ The drawing(s) filed on 03/24/2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) ☐ All b) ☐ Some \* c) ☐ None of:  
 1. ☐ Certified copies of the priority documents have been received.  
 2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>11/24/2004</u> . | 6) <input type="checkbox"/> Other: _____  |

Art Unit: 1711

1. Applicants' response to the Election of Species requirement of September 27, 2006 is acknowledged. Accordingly, claims 3-5, 14, 15, 32-34, 43, 44, 69, 77, and 78 have been withdrawn from further consideration as being drawn to non-elected species.

2. Claims 1, 2, 6-13, 16-31, 35-42, 45-68, 70-76, and 79-82 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Firstly, with respect to claim 1, applicants have claimed a silane-terminated polyurethane composition comprising a reaction product of silane-terminated components, and with respect to claim 62, applicants have referred to a silane-terminated reaction product. Since it is presumed that the reaction product forms by reacting the silane groups, it is questioned how the reaction products can still be silane-terminated. Furthermore, with respect to claim 62, it is unclear how simply combining the components will yield the reaction products.

Secondly, throughout the claims, the language, "low molecular weight silane adduct", renders the claims indefinite, because "low molecular weight" is a subjective term. It cannot be quantitatively determined exactly what values are encompassed by the language. Furthermore, applicants have stated that the silane adduct comprises at least one of a trisilane adduct or a tetrasilane adduct; however, it is unclear if or how this language pertains to the subject matter of claims 6, 35, and 66 (component C), since there does not appear to be any clear requirement within these claims that the adducts are trisilane or tetrasilane.

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

Art Unit: 1711

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Schmalstieg et al. ('751).

Patentees disclose curable compositions containing terminal alkoxysilane groups wherein secondary amine alkoxy silanes are reacted with polyisocyanates. See abstract and columns 3 and 4. Patentees further disclose at column 7, lines 40-44 that suitable polyisocyanates include NCO semi-prepolymers. Since the disclosed semi-prepolymers contain both prepolymeric polyisocyanates and monomeric starting polyisocyanates, the position is taken that the reaction of the semi-prepolymer with the aminosilane yields a composition containing both a silane-terminated polyurethane prepolymer component and a silane-terminated monomeric diisocyanate component.

Art Unit: 1711

5. Claims 1, 2, 6-9, 12, 13, 16, 18-31, 35-38, 41, 42, 45, 47-66, 68, 70-72, 75, 76, 79, 81, and 82 are rejected under 35 U.S.C. 103(a) as being unpatentable over Johnston et al. ('170) in view of Fenn et al. ('246).

Johnston et al. disclose compositions suitable for sealing and coating substrates comprising silane terminated polyurethane prepolymers and adhesion promoters, wherein the silane terminated polyurethane prepolymers are produced by reacting a secondary aminosilane, that corresponds to applicants' aminosilane, with an isocyanate terminated prepolymer, wherein the prepolymers are produced from polyols that correspond to those instantly claimed. Patentees further disclose that the compositions may contain catalysts as well as conventional additives, such as fillers, plasticizers, thixotropes, antioxidants, and UV stabilizers. See abstract and columns 2 and 4-7. Though patentees fail to disclose all of the applicants' claimed additives, the examiner takes official notice under MPEP 2144.03 that the claimed additives were well-known and conventional within the art at the time of invention. Accordingly, it would have been obvious to incorporate these components within the formulation for their art recognized purposes.

6. Johnston et al. are silent regarding applicants' claimed silane terminated monomeric diisocyanate component; however, the incorporation of silane functional oligomers, derived from the reaction of monomeric diisocyanates with secondary aminosilanes, within silane functional polymer coating compositions was known at the time of invention. Fenn et al. disclose that the use of such oligomers within silane functional polymer coating compositions improves such properties as water resistance, clarity, and hardness. See columns 2-4. Accordingly, the position is taken that it would have been obvious to incorporate such a component into the silane

Art Unit: 1711

terminated polymer coating composition of the primary reference, so as to obtain a coating composition having the aforementioned improved properties.

7. Claims 1, 2, 6-9, 12, 13, 16-31, 35-38, 41, 42, 45-66, 68, 70-72, 75, 76, and 79-82 are rejected under 35 U.S.C. 103(a) as being unpatentable over Roesler et al. (US 2006/0173140) in view of Fenn et al. ('246).


Roesler et al. disclose compositions suitable for coating substrates comprising silane terminated polyurethane prepolymers, wherein the silane terminated polyurethane prepolymers are produced by reacting a secondary aminosilane, that corresponds to applicants' aminosilane, with an isocyanate terminated prepolymer, wherein the prepolymers are produced from polyether polyols having a degree of unsaturation that meets that claimed by applicants. Roesler et al. further disclose that the compositions may contain catalysts and solvents as well as conventional additives, such as leveling agents, wetting agents, flow control agents, antiskinning agents, antifoaming agents, fillers, viscosity regulators, plasticizers, pigments, dyes, UV absorbers and stabilizers against thermal and oxidative degradation. See abstract and paragraphs [0022] through [0031], [0036], [0037], [0041], [0042], and [0075] through [0078]. Though Roesler et al. fail to disclose all of the applicants' claimed additives, the examiner takes official notice under MPEP 2144.03 that the claimed additives were well-known and conventional within the art at the time of invention. Accordingly, it would have been obvious to incorporate these components within the formulation for their art recognized purposes.

8. Roesler et al. are silent regarding applicants' claimed silane terminated monomeric diisocyanate component; however, the incorporation of silane functional oligomers, derived from the reaction of monomeric diisocyanates with secondary aminosilanes, within silane functional

Art Unit: 1711

polymer coating compositions was known at the time of invention. Fenn et al. disclose that the use of such oligomers within silane functional polymer coating compositions improves such properties as water resistance, clarity, and hardness. See columns 2-4. Accordingly, the position is taken that it would have been obvious to incorporate such a component into the silane terminated polymer coating composition of the primary reference, so as to obtain a coating composition having the aforementioned improved properties.

Any inquiry concerning this communication should be directed to R. Sergent at telephone number (571) 272-1079.

  
**RABON SERGENT**  
**PRIMARY EXAMINER**

R. Sergent  
January 22, 2007